

**KANAO**

**Application No. 09/893,422**

**October 20, 2003**

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A spark plug for a cogeneration engine comprising:

a tubular housing;

a central bar electrode supported by said tubular housing in said tubular housing with electrical insulation therebetween;

a first bar discharge member being arranged at one end of said central bar electrode, comprising Ir alloy, ~~and protruding from one end of said tubular housing along an axis of said center electrode, and having an outer circumferential surface along said axis;~~

a plate ground electrode being arranged at said one end of said tubular housing in a radial direction of said axis and having an end surface confronting said outer circumferential ~~a side surface of said first bar discharge member;~~ and

a second discharge member being arranged on said end surface and having a surface confronting said outer circumferential ~~side surface~~, spark discharge being generated at a gap between said first and second discharge members, wherein if it is assumed that a distance of said gap is G, a width of said outer circumferential ~~side~~ surface in a normal direction of a plane including said radial direction and said axis is D, and a width of said surface in said normal direction is A, G is equal to or greater than 0.2

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mm and equal to or lower than 0.6 mm, D is equal to or greater than 1.6 mm,  $|A - D|$  is equal to or lower than a result of adding 0.5 mm to G.

2. (original) A spark plug as claimed in claim 1, wherein D is equal to or lower than 5.0 mm.

3. (original) A spark plug as claimed in claim 1, further comprising a weld portion between said one end of said central electrode and said first bar discharge member, wherein a maximum cross-sectional area of said weld portion on a plane perpendicular to said axis is equal to or lower than  $8 \text{ mm}^2$ .

4. (original) A spark plug as claimed in claim 1, wherein said one end of said central electrode is welded to a surface of said first bar discharge member on the side of said central electrode.

5. (original) A spark plug as claimed in claim 1, further comprising a weld portion between said one end of said central electrode and said first bar discharge member, said weld portion being provided by laser welding, wherein said weld portion does not confront said surface of said second discharge member, if it is assumed that a shortest distance between said weld portion and said second discharge member is L, L is equal to or greater than G.

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6. (original) A spark plug as claimed in claim 5, wherein L is equal to or greater than a result of adding 0.2 mm to G.

7. (original) A spark plug as claimed in claim 1, wherein each of said first and second discharge members comprises Ir and at least one of Rh, Pt, Ru, Pd, and W.